

*Sub
P. 1
cont*
diacylphosphatidylethanolamine, diacylphosphatidylinositol, and diacylphosphatidylserine.--

--47. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the surfactant is a C₈-C₁₆ fatty acid salt.--

--48. A pharmaceutical aerosol formulation as claimed in claim 47, wherein the fatty acid salt is selected from the group consisting of sodium, potassium and lysine salts of caprylate (C₈), caprate (C₁₀), laurate (C₁₂) and myristate (C₁₄).--

*C1
cont,*
--49. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the surfactant is a trihydroxy bile salt.--

--50. A pharmaceutical aerosol formulation as claimed in claim 49, wherein the bile salt is selected from the group consisting of salts of cholic, glycocholic and taurocholic acids.--

--51. A pharmaceutical aerosol formulation as claimed in claim 50, wherein the bile salt is selected from the group consisting of sodium and potassium salts of cholic, glycocholic and taurocholic acids.--

--52. A pharmaceutical aerosol formulation as claimed in claim 51, wherein the bile salt is sodium taurocholate.-

--53. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the surfactant is selected from the group consisting of dioctanoylphosphatidylglycerol and dioctanoylphosphatidylcholine.--

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--54. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the surfactant is selected from the group consisting of an alkyl glucoside and an alkyl maltoside.--

--55. A pharmaceutical aerosol formulation as claimed in claim 54, wherein the surfactant is selected from the group consisting of decyl glucoside and dodecyl maltoside.--

Sub E2

--56. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the propellant comprises 1,1,1,2-tetrafluoroethane (P134a), 1,1,1,2,3,3,3-heptafluoropropane (P227), or 1,1-difluoroethane (P152a).--

--57. A pharmaceutical aerosol formulation as claimed in claim 56, wherein the propellant comprises 1,1,1,2-tetrafluoroethane (P134a) and 1,1,1,2,3,3,3-heptafluoropropane (P227).--

--58. A pharmaceutical aerosol formulation as claimed in claim 57, wherein the propellant comprises a density-matched mixture of 1,1,1,2-tetrafluoroethane (P134a) and 1,1,1,2,3,3,3-heptafluoropropane (P227).--

--59. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the medicament is a β 2-adrenoreceptor agonist, an anticholinergic bronchodilator, or a glucocorticosteroid.--

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cont.

--60. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the medicament is selected from the group consisting of salbutamol, terbutaline, rimiterol, fenoterol, reproterol, adrenaline, pirbuterol, isoprenaline, orciprenaline, bitolterol, salmeterol, formoterol, clenbuterol, procaterol, broxaterol, picumeterol, TA-2005, mabuterol, ipratropium bromide, beclomethasone, fluticasone, budesonide, tipredane, dexamethasone, betamethasone, fluocinolone, triamcinolone acetonide, mometasone, and pharmacologically acceptable esters and salts thereof.--

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--61. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the medicament is selected from the group consisting of anti-allergic medicaments, expectorants, mucolytics, antihistamines, cyclooxygenase inhibitors, leukotriene synthesis inhibitors, leukotriene antagonists, phospholipase-A2 (PLA2) inhibitors, platelet aggregating factor

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cont.

(PAF) antagonists, prophylactics of asthma, antiarrhythmic medicaments, tranquilisers, cardiac glycosides, hormones, anti-hypertensive medicaments, antidiabetic medicaments, antiparasitic medicaments, anticancer medicaments, sedatives, analgesic medicaments, antibiotics, antirheumatic medicaments, immunotherapeutic agents, antifungal medicaments, antihypotension medicaments, vaccines, antiviral medicaments, proteins, peptides, vitamins, cell surface receptor blockers, antioxidants, free radical scavengers, and organic salts of N,N'-diacetylcystine.--

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cont.

--62. A pharmaceutical aerosol formulation as claimed in claim 46, including ethanol in an amount of up to 20% by weight of propellant and surfactant.--

--63. A pharmaceutical aerosol formulation as claimed in claim 46, including ethanol in an amount of up to 5% by weight of propellant and surfactant.--

Sub E3

--64. A pharmaceutical aerosol formulation as claimed in claim 46, including another pharmaceutically active agent selected from the group consisting of adjuvants, carriers, flavouring agents, buffers, antioxidants and chemical stabilisers.--

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H

--65. A pharmaceutical aerosol formulation as claimed in claim 46, wherein at least 50% of the medicament consists of particles having a diameter of 0.01-10 microns.--

--66. A pharmaceutical aerosol formulation as claimed in claim 46, wherein at least 50% of the medicament consists of particles having a diameter of 0.1-6 microns.--

--67. A pharmaceutical aerosol formulation as claimed in claim 46, wherein at least 50% of the medicament consists of particles having a diameter of 0.1-5 microns.--

--68. A pharmaceutical aerosol formulation as claimed in claim 65, wherein at least 70% of the medicament consists of particles having a diameter of 0.01-10 microns.--

--69. A pharmaceutical aerosol formulation as claimed in claim 65, wherein at least 90% of the medicament consists of particles having a diameter of 0.01-10 microns.--

--70. A pharmaceutical aerosol formulation as claimed in claim 66, wherein at least 70% of the medicament consists of particles having a diameter of 0.01-6 microns.--

--71. A pharmaceutical aerosol formulation as claimed in claim 66, wherein at least 90% of the medicament consists of particles having a diameter of 0.01-6 microns.--

--72. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the concentration of medicament in the formulation is 0.1 mg/ml to 25 mg/ml.--

--73. A pharmaceutical aerosol formulation as claimed in claim 46, wherein the ratio of surfactant to medicament is in the range of 1:50 to 1:0.2.--

--74. A method for the manufacture of a pharmaceutical aerosol formulation as claimed in claim 46, comprising the steps of:
mixing the medicament and the surfactant in a vessel;
adding propellant to the vessel; and
mixing the propellant with the medicament/surfactant mixture to produce a medicament/surfactant/propellant mixture.--

--75. The method of claim 74, further comprising the step of mixing additional propellant with the medicament/surfactant/propellant mixture.--

--76. A method for the treatment of a patient in need of therapy with a medicament, comprising administering to said patient a therapeutically effective amount of a pharmaceutical aerosol formulation comprising a HFA propellant; a physiologically effective amount of the medicament; and a surfactant selected from the group consisting of a C₈-C₁₆ fatty acid or salt thereof, a bile salt, a phospholipid, and an alkyl saccharide, wherein the phospholipid is selected from the group consisting of lysophosphatidylcholine, lysophosphatidylglycerol, lysophosphatidylethanolamine, lysophosphatidylinositol, lysophosphatidylserine, diacylphosphatidylcholine,

Sub E2 cont
diacylphosphatidylglycerol, diacylphosphatidylethanolamine,
diacylphosphatidylinositol, and diacylphosphatidylserine.--

Sub E4 --77. The method of claim 76, wherein said
propellant comprises 1,1,1,2-tetrafluoroethane (P134a),
1,1,1,2,3,3,3-heptafluoropropane (P227), or 1,1-difluoroethane
(P152a).--

C1 cont. --78. The method of claim 76, wherein said
surfactant is selected from the group consisting of sodium,
potassium and lysine salts of caprylate (C_8), caprate (C_{10}),
laurate (C_{12}) and myristate (C_{14}).-- *AD*

--79. The method of claim 76, wherein said
surfactant is a trihydroxy bile salt.--

Sub E3 --80. The method of claim 76, wherein the
surfactant is an alkyl glucoside or an alkyl maltoside.--

--81. The method of claim 76, wherein the
medicament is a β 2-adrenoreceptor agonist, an anticholinergic
bronchodilator, or a glucocorticosteroid.--

Sub H1 --82. The method of claim 76, wherein the
medicament is selected from the group consisting of anti-allergic
medicaments, expectorants, mucolytics, antihistamines,
cyclooxygenase inhibitors, leukotriene synthesis inhibitors,